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New Birds from Barotseland

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In 1961 I had the good fortune to be able to spend two months collecting birds in the Kalabo District of Barotseland Protectorate, Northern Rhodesia. Kalabo District is in the northwest corner of Barotseland, west of the Zambesi River, and differs from the rest of the protectorate in having extensive short-grass plains. The woodland of the district is a rather poor *Brachystegia*, except in the far south along the Cuando River where *Acacia* is found.

Support for this field work was received from the National Science Foundation (Grant No. G-13221), and I wish to express my warmest appreciation for this generosity. I also wish to thank Messrs. R. H. N. Smithers and M. P. Stuart Irwin of the National Museums of Southern Rhodesia for permission to compare my birds in Bulawayo with their very extensive material from southern Africa.

Mirafrapa apiata jappi, new subspecies

Type.—Chicago Natural History Museum no. 262779, an adult male from Liuwa Plain, Kalabo District, Barotseland Protectorate, Northern Rhodesia, collected October 29, 1961, by M. A. Traylor. Collector's number 225.

Diagnosis.—Much darker above than any other described race, the center stripes on the dorsal feathers being blackish brown. General tone of upper parts grayish as in *damarensis*, *deserti* and *nata*, but these latter are very pale, and the dark centers of the dorsal feathers hardly contrast with the pale edgings. The remaining races all have a marked reddish suffusion.

Measurements of type.—Wing 90, tail 56, bill 17, tarsus 27 mm.

Range.—Grassy plains in the northern part of Kalabo District, Barotseland.

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Remarks.—This is the first record of *Mirafra apiata* from Northern Rhodesia, the next nearest population being the race *nata* from the Makarikari Pan region of northeastern Bechuanaland. In Kalabo District, *jappi* was found on the extensive short-grass plains north of the Luanginga and North Lueti rivers, and at Sikongo, near the Angola border, it was found south of the North Lueti.

On Liuwa Plain the clapper lark was quite common and was breeding in late October. In this locality it was living side by side with the flappet lark, *Mirafra rufocinnamomea lwenarum*. Although generally *apiata* preferred the open plain and *rufocinnamomea* the edges of woodland, at one spot by a small pan with woods along one side they were within a few feet of each other. Based on the specimens collected, there seems to be a marked difference in the methods of flapping; *apiata* rises about 50 or 100 feet, flapping as it goes, and then drops back to earth not far from where it took off; *rufocinnamomea* climbs to about 200 or 300 feet, and then flies in wide circles of at least a quarter mile in diameter, flapping at intervals. All the larks making the short flights were *apiata*; they were easy to observe and collect. The larks making the long flights were much more difficult to collect since they were frequently out of sight, but the one that by chance landed near enough to shoot was *rufocinnamomea*.

It gives me great pleasure to name this race for Mr. Richard Japp, Witwaterstrand Native Labor Association representative at Kalabo. Not only did he help me plan my trip so that I was able to collect in all the different vegetation zones of the district, but he and his wife Hazel graciously opened their home to me for the duration of my stay.

MEASUREMENTS OF SPECIMENS COLLECTED

(In millimeters)

	Males (9)	Females (3)
Wing.....	86-91 (88.7)	78, 79, 80
Tail.....	54-59 (56.8)	49, 49, 50
Bill.....	16.5-19 (17.5)	14.5, 16, 16.5
Tarsus.....	26-29 (27.3)	25, 26, 26

Calandrella conirostris makawai, new subspecies

Type.—Chicago Natural History Museum no. 262780, an adult male from Liuwa Plain, Kalabo District, Barotseland Protectorate, Northern Rhodesia, collected October 29, 1961, by M. A. Traylor. Collector's number 211.

Diagnosis.—Much darker, both above and below, than *crypta* and *barlowi* from Bechuanaland. On the upper surface *barlowi* is reddish

fawn with the dark center stripes of the feathers reduced and the edgings correspondingly broad; *crypta* is pale grayish brown above, the center stripes brown rather than blackish and the pale edgings gray, lacking any warmth. In *makawai* the center stripes of the dorsal feathers are broad and blackish brown and the edgings pinkish buff. On the under parts *makawai* is dark pinkish buff, much darker than either of the others, and with well-marked pectoral spotting. I have not seen *damarensis*, but it is stated to be as pale as *crypta* but more brownish, and with much reduced pectoral spotting.

Makawai shows a surprisingly close resemblance to nominate *conirostris* from Cape Province. On the upper parts they are alike, but *conirostris* has more extensive pectoral spotting with some streaks on the flanks, and appears to have a larger bill. Two *conirostris* males have bills 12 and 12.5, while six *makawai* measure 10–11.5 (10.7).

Measurements of type.—Wing 75, tail 44, bill 10, tarsus 20 mm.

Range.—Apparently confined to Liuwa Plain, Kalabo District, Barotseland.

Remarks.—This is the first time that the species *conirostris* has been taken in Northern Rhodesia, the nearest population being *crypta* from the northern part of the Makarikari Pan in Bechuanaland. It was locally common on the eastern part of Liuwa Plain, but was not found elsewhere. During late October the adults were just completing their post-nuptial molt, the contour feathers being very fresh and the outermost primaries and rectrices still growing in, and the single juvenal had just begun its post-juvenal molt.

It is interesting that in both *Mirafra apiata* and *Calandrella conirostris* the isolated populations in Kalabo District should be much darker than races to the south and southwest. This does not appear to be a direct response to soil color since Liuwa Plain is pale Kalahari sand. However, the rainfall in Kalabo is 30+ inches, considerably higher than in Bechuanaland and Damaraland, and the darker color may be a response to the increased humidity. A third species of lark, *Eremopterix verticalis*, was also found for the first time in Northern Rhodesia in the Kalabo District. However, this species has undergone no variation and is indistinguishable from the palest race to the south, *khama* from the Makarikari Pan.

It gives me great pleasure to name this race for Jali Makawa, C. W. Benson's collector from the Game and Fisheries Department of Northern Rhodesia. As Benson has said, Jali is the cleverest hunter in Africa, and he succeeded in collecting eight *makawai* while I was lucky to get one.